What is claimed is:

1. A composition comprising one or more sources of copper ions, an electrolyte and one or more poly(alkylene oxide) random copolymers comprising as polymerized units two or more alkylene oxide monomers.

2. The composition of claim 1 wherein the poly(alkylene oxide) random copolymer is an ethylene oxide / propylene oxide random copolymer.

3. The composition of claim 2 wherein the ethylene oxide / propylene oxide random copolymer has the formula $HO-(A)_n-(B)_m-H$ wherein each of A and B are selected from ethyleneoxy and propyleneoxy groups provided that A and B are different; and n and m are the number of A and B repeat units, respectively, in the copolymer.

4. The composition of claim 1 wherein the poly(alkylene oxide) random copolymer is a linear copolymer or a star copolymer.

5. The composition of claim 1 wherein the poly(alkylene oxide) random copolymer has a molecular weight of 500 to 20,000.

6. The composition of claim 1 further comprising one or more brighteners.

7. The composition of claim 1 further comprising one or more leveling agents.

8. The composition of claim 1 wherein the electrolyte is acidic.

9. A method of depositing a layer of copper on a substrate comprising the steps of contacting the substrate with the composition of claim 1 and applying current density for a period of time sufficient to deposit a layer of copper on the substrate.

10. The method of claim 9 wherein the substrate is a printed wiring board, lead frame or an integrated circuit.

11. The method of claim 9 wherein the poly(alkylene oxide) random copolymer is an ethylene oxide / propylene oxide random copolymer.

12. The method of claim 11 wherein the ethylene oxide / propylene oxide random copolymer has the formula $HO-(A)_n-(B)_m-H$ wherein each of A and B are selected from ethyleneoxy and propyleneoxy groups provided that A and B are different; and n and m are the number of A and B repeat units, respectively, in the copolymer.

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13. The method of claim 9 wherein the substrate has one or more apertures having a width of ≤ 1 μm.

14. A method of manufacturing an electronic device comprising the step of depositing a layer of copper on an electronic device comprising the steps of contacting the electronic device substrate with the composition of claim 1 and applying current density for a period of time sufficient to deposit a layer of copper on the electronic device.

15. The method of claim 14 wherein the substrate is a printed wiring board, lead frame or an integrated circuit.

16. The method of claim 14 wherein the poly(alkylene oxide) random copolymer is an ethylene oxide / propylene oxide random copolymer.

17. The method of claim 16 wherein the ethylene oxide / propylene oxide random copolymer has the formula $HO-(A)_n-(B)_m-H$ wherein each of A and B are selected from ethyleneoxy and propyleneoxy groups provided that A and B are different; and n and m are the number of A and B repeat units, respectively, in the copolymer.

18. The method of claim 14 wherein the substrate has one or more apertures having a width of ≤ 1 μm.